

Unios, Lewis' types of *Anodonta dejecta*. The species was furnished by Dr. H. C. Yarrow, Surgeon and Naturalist of the Wheeler Expedition, and was said to have come from the Arkansas or its tributaries, west of the 100th meridian. The lot consists of three broken valves, two of them forming a normal pair but very much distorted.

I saw in a moment that the shell I named *Anodonta mearnsiana* in the NAUTILUS, Vol. VI, no. 12, p. 134 was the same, and my name will therefore have to be relegated to the synonymy.

Lewis described his species in Field and Forest, Vol. 1, nos. 3 and 4, page 26, and in Wheeler's Report upon Geographical and Geological Explorations and Surveys West of the One Hundredth Meridian, vol. V, Zoology, p. 952, 1875, but did not figure it.

I am almost certain that the locality given by Dr. Yarrow is wrong, as the specimens collected by Dr. Mearns were from San Bernardino Ranch, Arizona, out of waters that drain into the Colorado River of the West. A very large number of specimens were sent, and there can be no doubt as to where they were found.

It would indeed be a strange thing if this species was obtained from two places seven or eight hundred miles apart, in two distinct drainage areas. As the locality given for Lewis' species is rather vague, and a large amount of the collections of the Wheeler Expedition were made on the Pacific slope it is quite probable that the types of *A. dejecta* came from the Colorado drainage basin.

Washington, D. C., Aug. 1st, 1894.

DESCRIPTIVE NOTICES OF NEW CHITONS, V.

BY H. A. PILSBRY.

Ischnochiton ptychius n. sp.

Shell small, oval, moderately elevated, with fine and distinct though rather obtuse dorsal keel and slightly convex side-slopes; bright *flesh-pink*, with a few white dots along the sutures, and creamy angular patches on the outer portions of the pleura of some valves, the girdle dull flesh-colored with indistinct whitish mottling in some places.

Median valves short, the posterior outlines slightly concave, with the beaks but slightly indicated. Lateral areas slightly raised, each

divided by one curved radial groove in front of the middle of the area, with one or several shorter, less distinct grooves in front of it; *concentrically sculptured with coarse, low, irregular wrinkles*, which make the sutural margin feebly dentate. Central areas finely and minutely sculptured with *irregularly zigzag transverse, vermiculate subgranose wrinkles*, which are broken into granules on the ridge, and are punctulate, the outer portions of the pleura more coarsely wrinkled. Valve i having weak radial grooves and concentric wrinkles. Valve viii with central, low, mucro, the posterior slope somewhat concave; sculptured like the head-valve but more obsoletely.

Interior rose-pink, fading to white on the sutural laminae. Sinus wide, notched at the bases of the sutural laminae; eaves narrow and *distinctly porous*. Median valves with 1-1, tail valve 16 slits; teeth sharp, very *distinctly crenulated at the inner edge*.

Girdle wide, densely clothed with scales which are weakly striated, and measure about one-seventh of a millim. in width, and *imbricate inward and backward*.

Length 11, breadth 8 mm.

Hab. St. Vincent Gulf (Bednall).

A peculiar little species, shorter than most Australian *Isechnochitons*, and wrinkled much as in *I. striolatus* Gray. In the individual before me there are creamy patches at the outer ends of valves iv, v, vii and viii; on the last valve there is some olive-green variegation of the cream color.

Chiton (*canaliculatus* var. ?) *tricostalis*, n.

Allied to *C. canaliculatus* Q. & G. (+*insculptus* Ad. and *stangeri* Rv.) and *C. discolor* Souv. (+*miniuceus* Cpr.), but having fewer radial riblets on end valves and lateral areas than the first, and more elevated than *discolor*, with projecting, more backward-hooked mucro on the tail valve.

Shell oblong, elevated, acutely keeled with nearly straight side slopes. Color variable, either (1) uniform chrome yellow, or (2) olivaceous mottled finely with white, with some white patches on the lateral areas, the outer halves of the pleura blackish, girdle olivaceous with cream-white bars opposite the sutures.

Median valves a trifle beaked, the posterior (sutural) margins nearly straight. Lateral areas well raised, having three radial tuberculate riblets, the middle one shortest; tubercles rounded and spaced on front two ribs, closer and compressed on the posterior rib,

where they denticulate the sutures. Rarely a fourth very short rib is indicated on some valves. Central areas having a smooth dorsal band of about the same width in front and behind, or somewhat wider in front. Pleura having 14-15 longitudinal riblets, narrower than their intervals, the inner 1 to 3 on each side not reaching to the anterior margin of the valve. Head valve with 17-19 radiating tuberculate ribs. Posterior valve elevated, the mucro projecting, posterior slope concave. Interior milky bluish, the sutural laminæ white.

Girdle densely clothed with imbricating finely striated scales, shaped like those of *Chiton sinclairi* and measuring about one-third of a millim. in width.

Length 17, breadth 9 mill.; an olivaceous, variegated specimen is somewhat larger.

Hab. St. Vincent Gulf, S. Australia (W. T. Bednall).

This form differs from *C. muricatus* in the shape of the girdle scales. It is more roughly sculptured than *C. canaliculatus*, with the girdle-scales different in form, although they are about the same width; and with a different pattern of coloring, although in this respect all the allied forms of the *canaliculatus* group vary a good deal. The smooth dorsal band is wider than in *canaliculatus*.

It is somewhat doubtful whether this should be considered a geographic variety of the New Zealand species or an independent species. It is at all events closely allied to the *C. canaliculatus*, although actual connecting links between the two are unknown to me. The detail figures given in volume xiv of the Manual of Conchology (pl. 36, f. 4, 6) excellently represent the sculpture of *C. canaliculatus*, being drawn from a specimen furnished by Professor Hutton.

Chiton æreus var. *calliozona* n. var.

Shell oblong, elevated, the dorsal ridge acutely keeled, side-slopes straight; light olive-green, with a few concentric lighter streaks upon each valve, and obscure dusky-green longitudinal streaks on each side of valves ii and vi, less conspicuous on iii and v. Posterior (sutural) margin of valves i to vii articulated or tessellated, being painted with alternate white and brown oblique spots. Girdle buff, paler on the outer half of its width, variegated with *transverse bars of crimson and black scales* mingled with the buff ones; about 10 bars on each side.

Median valves scarcely beaked, the posterior outline of each concave. Lateral areas raised, sculptured with two or three radial grooves, becoming more numerous toward the bases, and inconspicuous growth-striae. Central areas having a wide smooth triangle in the middle: *sculptured in front of each diagonal slope with narrow, spaced impressed longitudinal grooves*, not half as wide as the intervals, and which form a sculptured band, increasing but little in width outwards. *Toward the beaks of each valve these grooves disappear entirely, but are replaced by distinctly painted green lines*, very curiously simulating the grooves. Anterior valve with about 28 convex radial riblets, some split at base. Posterior valve with subcentral subprominent mucro, and slightly concave posterior slope, weakly radiated. Interior pale blue, the sutural laminae white. Sinus very narrow.

Girdle densely clothed with very convex, shining, polished solid scales, those in the middle of its breadth largest, measuring, six-tenths mill. in width.

Length 38, breadth 18 mill. (exclusive of girdle).

Hab. St. Vincent Gulf (W. T. Bednall).

I have not much doubt that this shell is a form of Reeve's *areus*, but the coloration is different, the number of riblets on the pleura is not nearly so great. Mr. E. A. Smith has united *areus* to the Mediterranean *C. siculus* (= *olivaceus*), but I can hardly endorse such a lumping of forms from totally different areas.

ISAIAH GREGOR.

We have heard with deep regret of the death of Mr. Isaiah Gregor, which occurred on the 26th of July at his home, Cuyahoga Falls, Ohio.

Mr. Gregor was not only an extensive dealer in shells, but also an ardent and earnest Conchological student. Though for many years engaged in a business requiring strict attention and skilful management, he never allowed this to interfere with the promptings of his generous heart; a fact which was constantly exemplified by his timely suggestions and gifts of specimens to friends and others engaged in Conchological pursuits. He also took much interest in the completion of the American Association's collection. His last